(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 6 January 2005 (06.01.2005)

PCT

(10) International Publication Number WO 2005/000831 A1

(51) International Patent Classification7: C07D 311/78, A61K 31/37, A61P 29/00

(21) International Application Number:

PCT/EP2004/006281

(22) International Filing Date: 11 June 2004 (11.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

03013899.4

20 June 2003 (20.06.2003)

- (71) Applicant (for all designated States except US): COGNIS FRANCE S.A. [FR/FR]; Boussens, F-31360 Saint-Martory (FR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MOUSSOU. Philippe [FR/FR]; 14, rue de Marsal, F-54000 Nancy (FR). FALCIMAIGNE, Aude [FR/FR]; 140 avenue du Général Leclercq, F-54000 Nancy (FR). GHOUL, Mohamed [FR/FR]; 43, rue Charles Martel, F-54000 Nancy (FR). DANOUS, Louis [FR/FR]; 12, Rue de Bretagne, F-54420 Saulxures les Nancy (FR). PAULY, Gilles [FR/FR]; 5, rue des Bégonias, F-54000 Nancy (FR).
- (74) Agent: GITTINGER, Andreas; Cognis Deutschland GmbH & Co. KG, Postfach 13 01 64, 40551 Düsseldorf (DE).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, $\mathsf{FR}, \mathsf{GB}, \mathsf{GR}, \mathsf{HU}, \mathsf{IE}, \mathsf{IT}, \mathsf{LU}, \mathsf{MC}, \mathsf{NL}, \mathsf{PL}, \mathsf{PT}, \mathsf{RO}, \mathsf{SE}, \mathsf{SI},$ SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ESTERS OF FLAVONOIDS WITH ω -SUBSTITUTED C6-C22 FATTY ACIDS

(57) Abstract: The invention refers to esters of flavonoids such as flavones, flavanoles, flavanoles, flavanoles, flavanoles, isoflavones, anthocyanins, proanthocyanidins, chalcones, aurones and hydroxycoumarins conjugated by an ester bond to an ω substituted C6-C22 fatty acid. These flavonoid derivatives exhibit excellent skin protecting properties especially against damages due to UV-radiation. They show very good chemical stability and are easily incorporated into cosmetic and pharmaceutical formulations.

